



## --ABSTRACT OF THE DISCLOSURE

a5 A turbo channel encoding/decoding device for a CDMA communication system. The device segments an input frame into multiple sub frames of an appropriate length when the input data frame is very long, and then encodes and decodes the sub frames. Otherwise, when the input data frames are very short, the device composes input frames into one super frame of an appropriate length and then encodes and decodes the super frame. After frame encoding/decoding, the frames are recomposed into the original input frames.--

### IN THE CLAIMS:

Please cancel Claim 1-47, without prejudice.

Please accept new Claims 48-99 as follows:

- new 48. (New) A mobile communication system having a turbo encoder capable of processing variable size input data blocks, comprising:
- a processor for determining to concatenate a number of consecutive input data blocks to compose a super frame, according to a QoS parameters of the input data;
  - a buffer for storing the consecutive input data blocks;
  - a first constituent encoder for receiving the super frame and encoding the super frame which is composed of a number of input data blocks;
  - an interleaver for interleaving the data of the super frame; and
  - a second constituent encoder for encoding the interleaved data of the super frame.
- a6 49. (New) The mobile communication system as claimed in claim 48, wherein said interleaver includes an interleaving address mapper for interleaving said super frame.
50. (New) The mobile communication system as claimed in claim 48, further comprising:
- a multiplexer for multiplexing respective outputs of the first and second constituent encoders; and
  - a channel interleaver for interleaving an output of the multiplexer.
51. (New) The mobile communication system as claimed in claim 50, wherein said